master

Operating Instructions

STEREO DOUBLE CASSETTE TAPE DECK AMPLIFIER

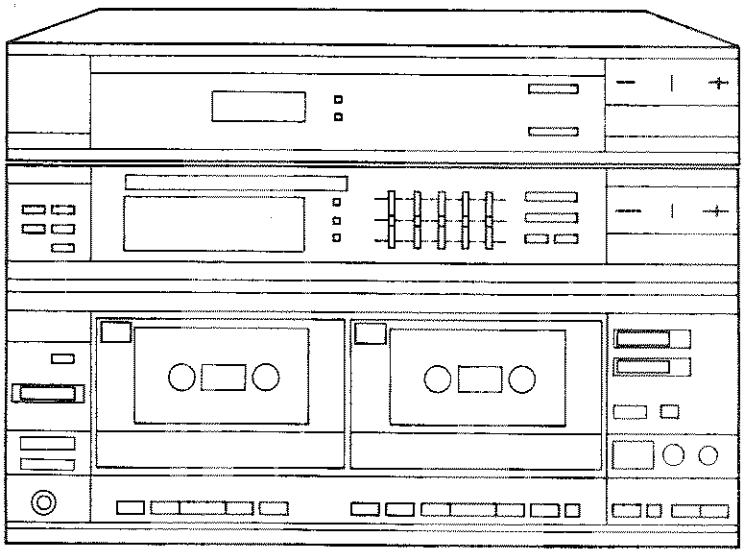
DC-X303Z

FM/AM DIGITAL SYNTHESIZER TUNER

F-X303Z S,YP

F-X303ZA

(Only Australian model)



Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE

[For U.S. and Canadian models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep in a secure area. This is for your security.

[For Canadian model]

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

"This product is manufactured to comply with the radio interference requirements of EEC Directive 76/889/EEC and 82/499/EEC."

PIONEER®

SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS — The operating instructions should be retained for future reference.

HEED WARNING — All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

WATER AND MOISTURE — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION — The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING — The appliance should not be mounted to a wall or ceiling.

VENTILATION — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

POLARIZATION — If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CLEANING — The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES — An outdoor antenna should be located away from power lines.

NONUSE PERIODS — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE — The appliance should be serviced by Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped; or the enclosure damaged.

SERVICING — The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.

OUTDOOR ANTENNA GROUNDING — If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
In the U.S.A. section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

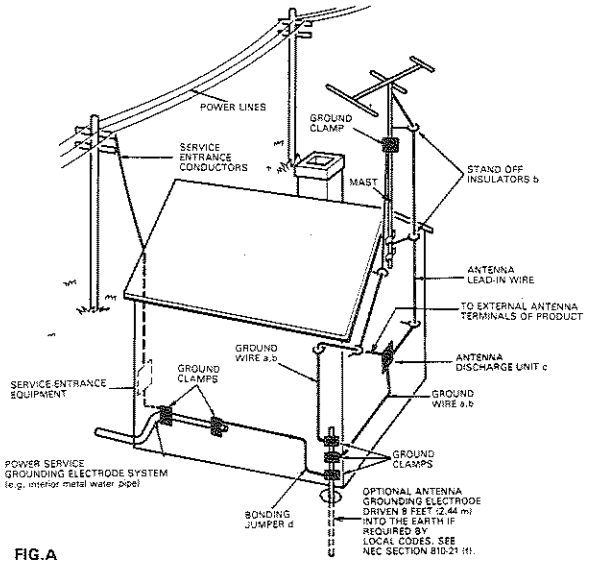

POWER LINES
GROUND CLAMP
SERVICE ENTRANCE CONDUCTORS
MAST
STAND OFF INSULATORS b
ANTENNA LEAD-IN WIRE
TO EXTERNAL ANTENNA TERMINALS OF PRODUCT
GROUND WIRE a,b
ANTENNA DISCHARGE UNIT c
GROUND CLAMPS
SERVICE-ENTRANCE EQUIPMENT
GROUND WIRE a,b
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (e.g. interior metal water pipe)
BONDING JUMPER d
OPTIONAL ANTENNA GROUNDING ELECTRODE DRIVEN 8 FEET (2.44 m) INTO THE EARTH IF REQUIRED BY LOCAL CODES. SEE NEC SECTION 810-21 (f).

FIG.A

a) Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel, bronze wire, or larger as ground wire.
b) Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
c) Mount antenna discharge unit as closely as possible to where lead-in enters house.
d) Use jumper wire not smaller than No.6 AWG (13.3 mm²) copper or equivalent when separate antenna-grounding electrode is used.

IMPORTANT 1

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

If the apparatus is fitted with AC mains power outlet(s), see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last, make sure that the power switch is off. Disconnect the wall plug when the equipment is not in (regular) use, e.g. when on vacation.

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

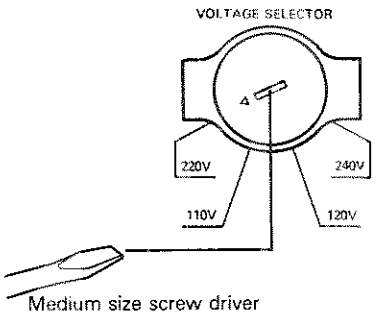
Equipment sold in the U.K. is not supplied with a power plug.

LINE VOLTAGE SELECTOR SWITCH

Only multi-voltage models are provided with this switch. U.S., Canadian, European, U.K., and Australian models are not provided with this switch.

The line voltage selector switch is on the rear panel. Before your model is shipped from the factory, this switch is set to the power requirements of the destination. Check that it is set properly before plugging the power cord into the AC outlet. If the voltage is not properly set or if you move to an area where the voltage requirements differ, adjust the selector switch as follows.

1. Use a medium-size screwdriver.
2. Insert the screwdriver into the groove on the voltage selector, and adjust so that the tip of the arrow points to the voltage value of your area.



Medium size screw driver

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FEATURES

Remote control unit covering almost all functions

The remote control unit can be used for power ON/OFF, tape recording/playback, program playback, and tuning, volume up/down and sleep operations.

Central display

The large-sized display indicates not only the functions and time but also the timer display, level meter, volume and balance. It is large enough to provide clear indication at a distance, and remote control operations are also facilitated.

Multi-function double reverse deck

This is a double deck with recording/playback reverse and playback-only reverse functions. It comes with three different modes: single-sided running (⇄), single reverse (↻) and continuous reverse (↻). Relay playback from the playback deck to the recording deck is also possible. Furthermore, the remote control unit can be used to search for and copy programs.

Auto tape selector

Normal, CrO_2 and metal tapes can be used with this unit which automatically differentiates between them and provides recording or playback in tune with the characteristics of the tape being used.

Single-action double-speed copying

Copies of programs can be made at double the normal speed with a single-action operation.

Built-in timer

The present time is displayed and, in place of a clock, the timer enables both unattended recording and wake-up playback.

CHECKING THE ACCESSORIES

Accessories provided with DC-X303Z

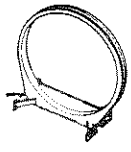
CU-DC002
Remote control unit ... 1

Size "AAA" (IEC R03)
1.5 V (UM-4)
dry batteries 2

Accessories provided with F-X303Z or F-X303ZA

FM T-type antenna 1

Tuner input/output
cord 1

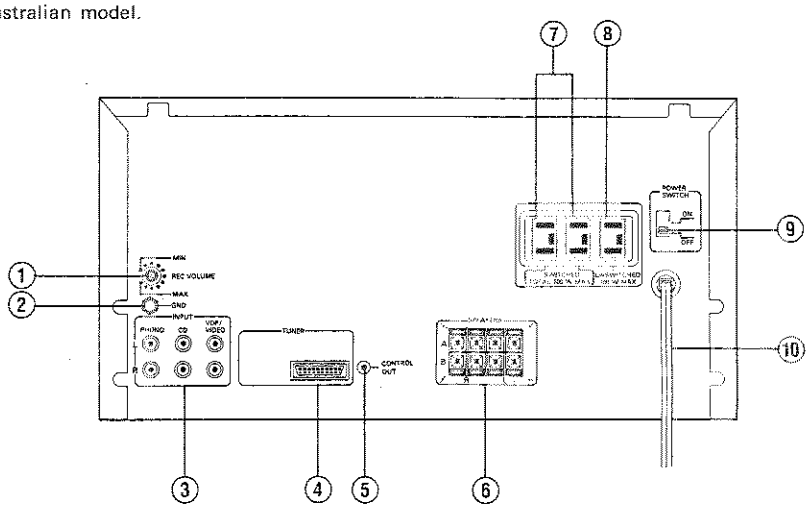


AM loop antenna 1

REAR PANEL FACILITIES

[Deck amplifier DC-X303Z]

The illustration shows Australian model.



① REC VOLUME control

Normally, this is not touched. However, when recording material onto a cassette tape, it is adjusted when the recording level is either too high or too low.
To raise the level, turn the control clockwise (↻).
To lower the level, turn the control counterclockwise (↺).

② Ground terminal (GND)

Connect this to the ground terminal on the turntable.

③ Input jacks

PHONO: Connect the output cord on the turntable to these jacks.
CD: Connect the output cord on the compact disc player to these jacks.
VDP/VIDEO: Connect the audio output cord of the LaserVision player (Video disc player) or hi-fi VCR to these jacks.

④ Tuner jacks

Connect the F-X303Z (or F-X303ZA) FM/AM tuner to the unit using the accessory tuner input/output cord.

⑤ Remote control output jack

Connect this jack to the CONTROL IN jack of a CD player or turntable provided with a PIONEER CONTROL IN jack.

- This jack enables the CU-DC002 remote control unit provided with the deck amplifier to exercise central control over the turntable and CD player.

⑥ Speaker terminals

A: Connect to a first set of speakers (rated impedance 6—16 ohms).
B: Connect to a second set of speakers (rated impedance 6—16 ohms).

NOTE:
Speaker impedance:
Connect a speaker system having a nominal impedance ranging from 6 ohms to 16 ohms.

⑦ AC OUTLETS (SWITCHED)

Power supplied through these outlets is turned on and off by the deck amplifier's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

⑧ AC OUTLET (UNSWITCHED)

Power flows continually to this outlet, regardless of whether the deck amplifier is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W.
The equipment should be disconnected by removing the main plug from the wall socket when not in regular use, e.g. when on vacation.

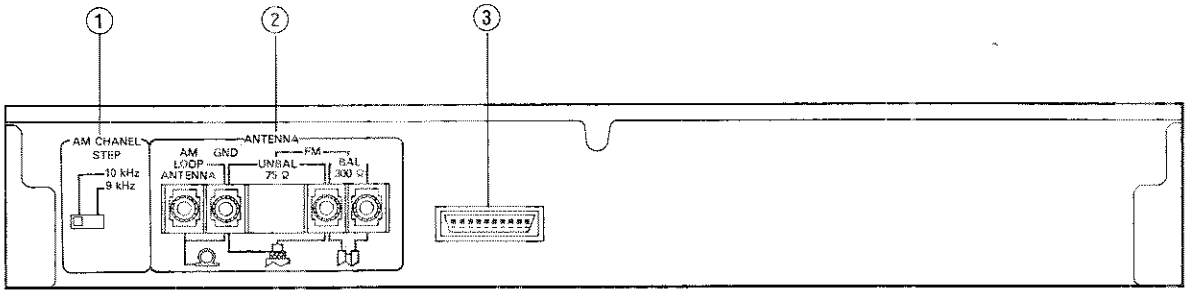
⑨ MAIN POWER SWITCH
(Only Australian model)

[ON]
While this unit is in a standby status and the power cord is connected to the wall socket, the circuit of the unit will operate continuously. When not using the unit for a long period, either switch the unit OFF, or remove the power cord from the power socket.
[OFF]
When the switch is OFF, the power to the unit will be cut off.

⑩ Power cord

Connect this to the AC wall socket.

[FM/AM tuner F-X303Z]



① AM CHANNEL STEP switch

Before leaving the factory, this switch is set to match the channel allocation of the area in which the unit is sold. If this switch is set to the incorrect position, the numbers of the reception frequency display will not stop. In order to assure that this doesn't happen, check the setting of the switch before using the unit.
10 kHz: North America and Continental South America
9 kHz: Other areas

NOTE:
If unclear about the channel allocation in your area, consult your dealer.

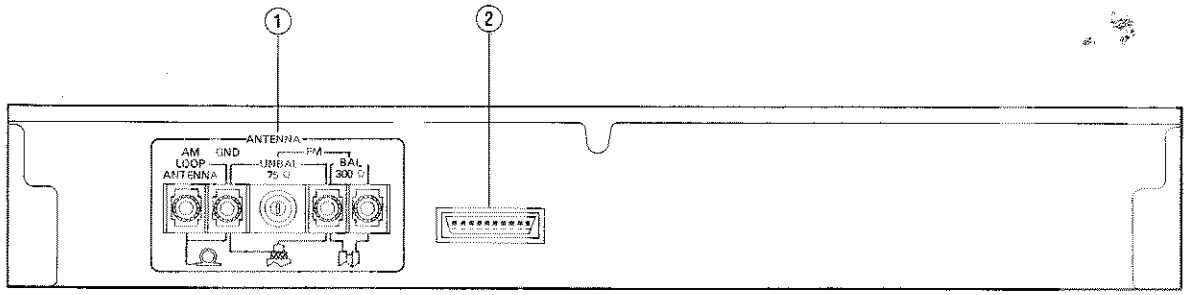
② FM/AM antenna terminals

Antennas must be connected to these terminals; otherwise you will not be able to receive stations. See page 7 for details on how to connect the antennas.

③ Connecting jack

This enables the deck amplifier and tuner to be connected with the accessory tuner input/output cord.

[FM/AM tuner F-X303ZA]



① FM/AM antenna terminals

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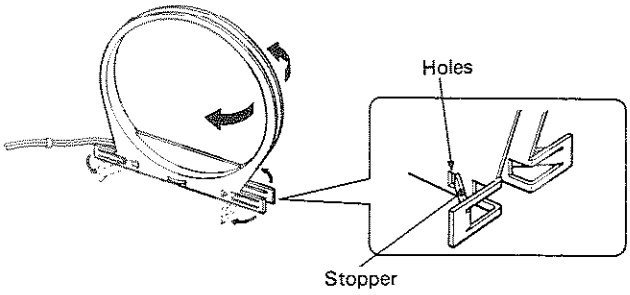
AM AND FM ANTENNAS

Assembling AM loop antenna



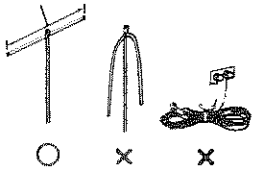
- Bend all four of both side legs of the AM loop antenna, as shown in the drawing, and fix the antenna by inserting the stoppers in the legs into the holes in the AM loop antenna.
- Place the loop antenna on a flat surface, and rotate it to the position where best reception is obtained.
- Do not allow the loop antenna to touch the case of the tuner or other metallic objects, and do not install it near a CD player, personal computer, or television set.
- Connect the loop antenna in the same way as for a FM T-type antenna.
  Refer to 2) "Connecting FM T-type antenna" below.

FM T-type antenna

This antenna is designed for easy reception of FM broadcasts.

1) Installing FM T-type antenna
Fully extend both sides of the antenna and fix them to the wall.

Extend and fix to wall.



2) Connecting FM T-type antenna

① Twist wire. ② Wrap wire in shown direction, then tighten terminal head.

External AM antenna

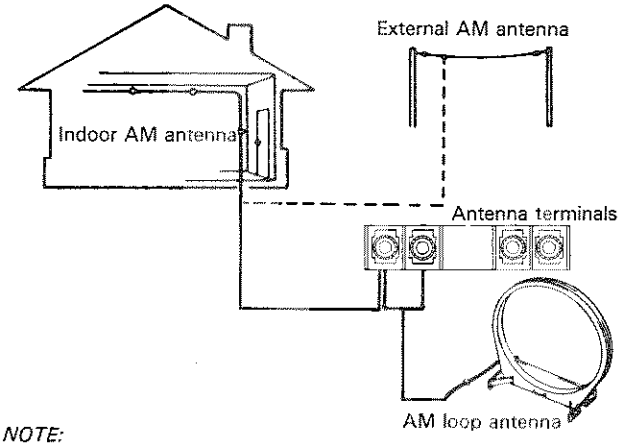
Indoor AM antenna

Provide a vinyl-coated wire (5 to 6 meters long). Secure one end to the AM terminal and the other end to a wall or other high location.

External AM antenna

If reception is still poor even when a lead antenna has been stretched out indoors, stretch out a vinyl-coated wire and secure it indoors.

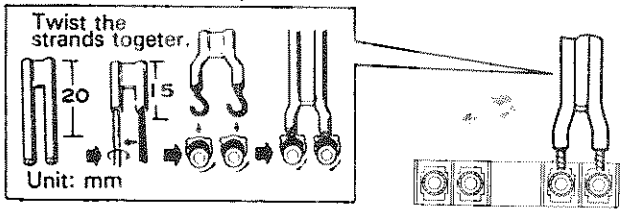
Connecting the external AM antenna

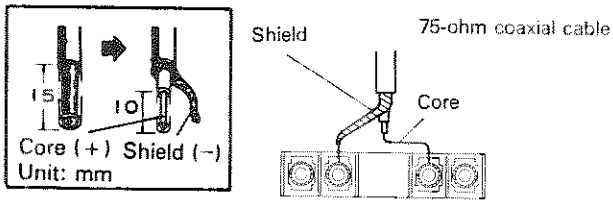


NOTE:
Do not detach the AM loop antenna when using the external AM antenna.

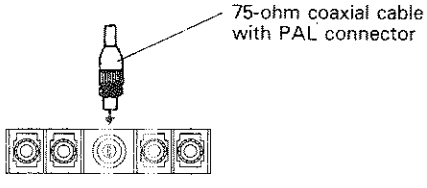
External FM antenna

The accessory T-type antenna will serve for FM reception until you erect an outdoor antenna which should be connected to the FM 300-ohm BAL terminals. Now tune in an FM station, spread both ends of the antenna as shown in the figure and find the position that yields optimum reception. Once this has been located, stretch the ends taut and fix them to the ceiling or wall.





Only model F-X303ZA:

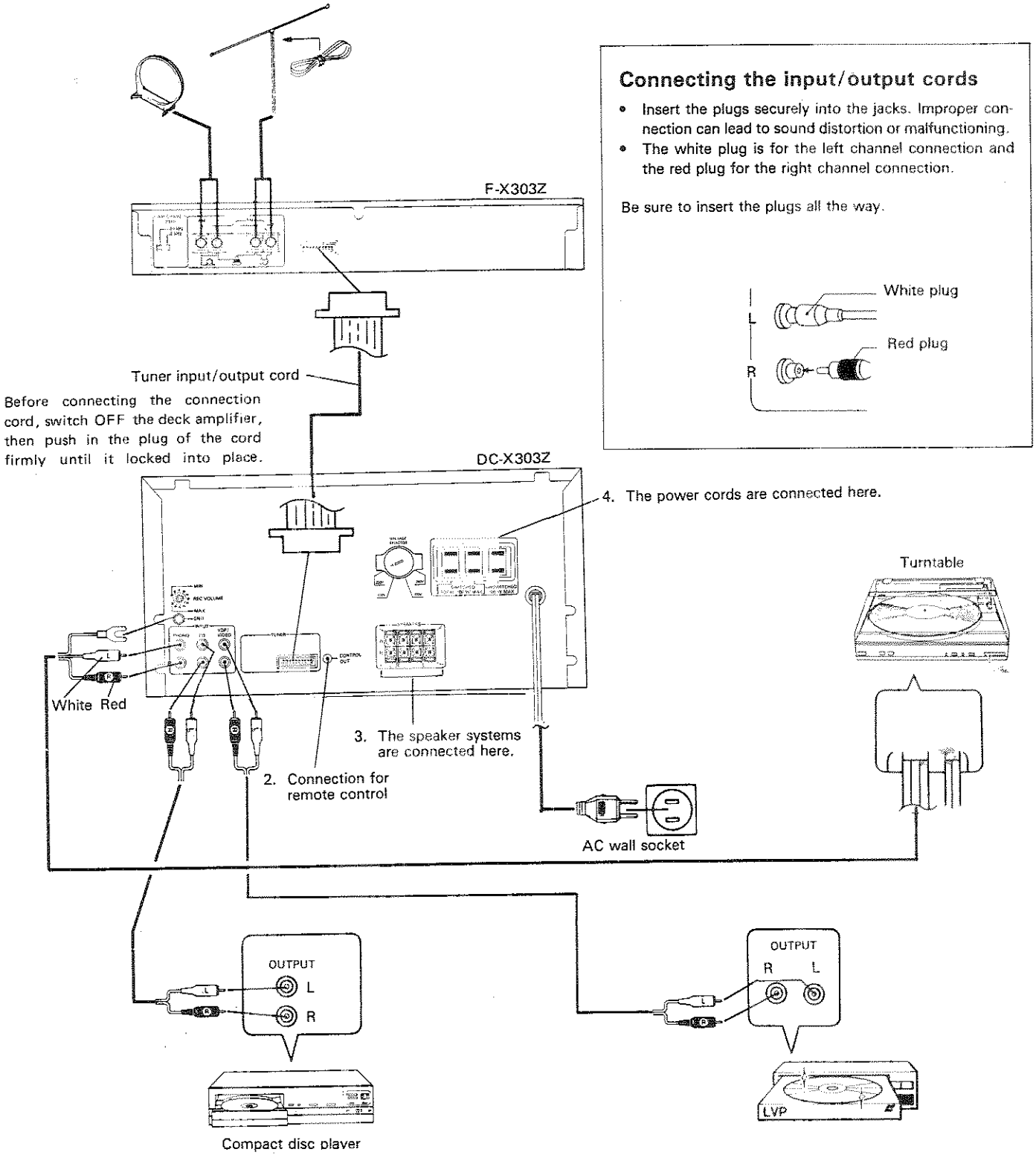


CONNECTIONS

[Illustration not applicable to the Australian models.]

1. Connecting the antennas and input/output cords

Plug the power cord into the AC wall socket outlet only after all the connections have been completed. Keep the power switch at the OFF position.



Connecting the input/output cords

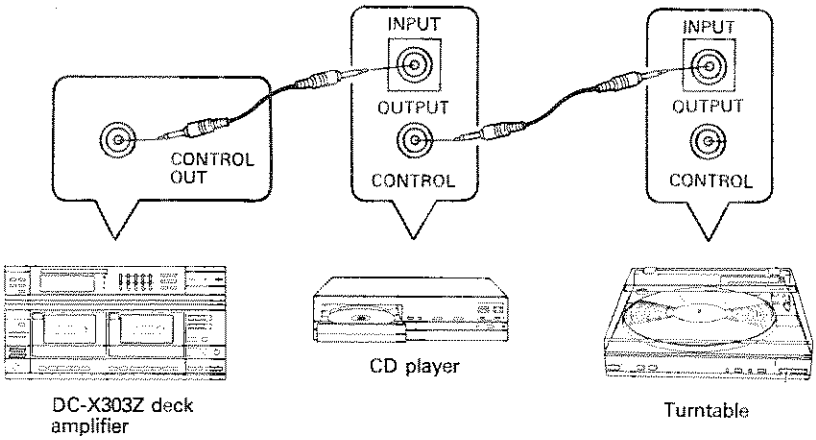
- Insert the plugs securely into the jacks. Improper connection can lead to sound distortion or malfunctioning.
- The white plug is for the left channel connection and the red plug for the right channel connection.

Be sure to insert the plugs all the way.

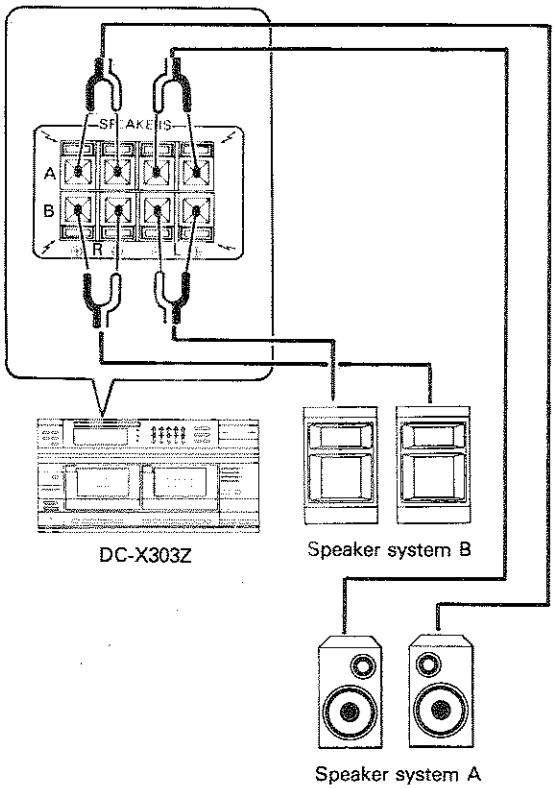
2. Connections for remote control

When a remote control unit is connected to a PIONEER stereo component provided with a control input (CONTROL IN) jack, this system can then be operated by the accessory remote control unit. Use the remote control cord which comes with the respective unit for the connection. An example is shown in the drawing below. So long as you connect "OUT" → "IN", the connecting sequence is arbitrary. In the case of a unit which has only an "IN" connector, however, make connection to it last.

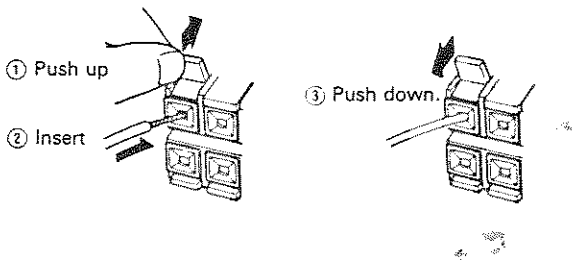
Even when using these connections, if a remote control unit is provided with your stereo equipment, you can operate the remote control unit by facing it towards the remote control receiver on the deck amplifier.



3. Connecting the speaker systems



4. Connecting the speaker cords



- Check that the speaker cords are secure and will not become disconnected.

NOTE

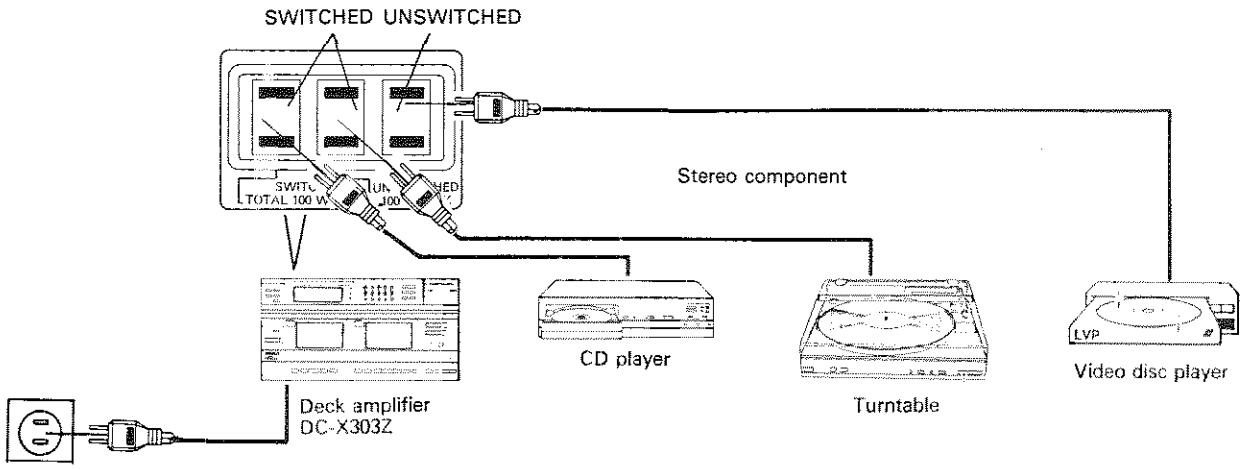
Do not allow the conductors of the cords to project beyond the terminals and to come into contact with other conductors. A breakdown or failure may occur when conductors touch one another.

Speaker impedance

Connect speaker systems with a nominal impedance of between 6 and 16 ohms.

5. Connecting the power cords

Illustration not applicable to the Australian models.

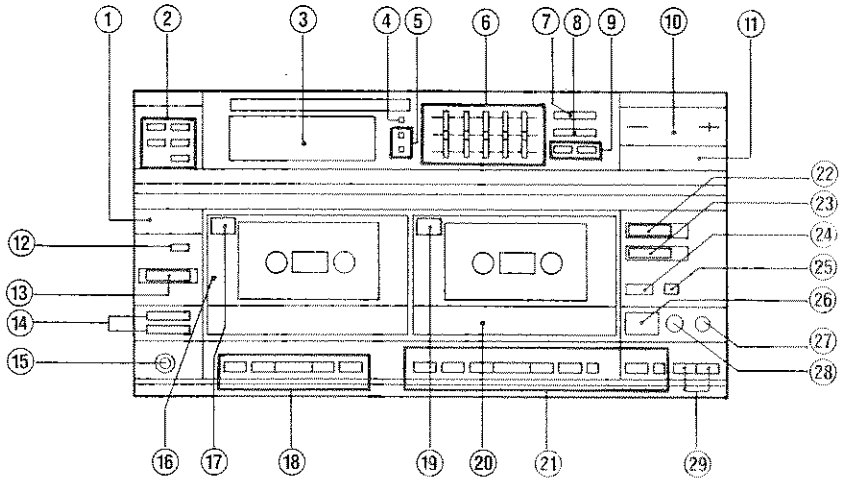


Precautions:

- The UNSWITCHED power outlet can accommodate stereo equipment having a maximum power consumption of 100 W.
- The SWITCHED power outlets can accommodate two items of stereo equipment having a total maximum power consumption of 100 W.
- If the power consumption exceeds 100 W, connect the stereo equipment to an AC wall socket.

FRONT PANEL FACILITIES

[Deck amplifier DC-X303Z]



[Amplifier section]

① POWER STAND-BY/ON switch

By pressing this switch ON, the POWER indicator will light, and power will be supplied to the main circuit of the deck amplifier.
By pressing this switch once again, the amplifier will go into the standby mode.

② TIMER SET switches

START TIME:	Used to set the start time of the timer.
STOP TIME:	Used to set the stop time of the timer.
– (minus):	Used to reduce the numerical value when setting the time.
+ (plus):	Used to increase the numerical value when setting the time.
CLOCK ADJUST:	Used to adjust the time.
SET/NEXT:	Used to set the time or timer or to move to the next operation.

③ Central display

This indicates the main operating modes (functions, time, volume, balance, etc.).

④ POWER indicator

This lights up when the power is switched on.

⑤ SOUND EFFECT indicators

STEREO WIDE:	Used to add a stereo wide effect to the stereo sound source such as music.
SIMULATED STEREO:	Used to add a simulated stereo effect to a monaural sound source with ordinary radio and other programs.

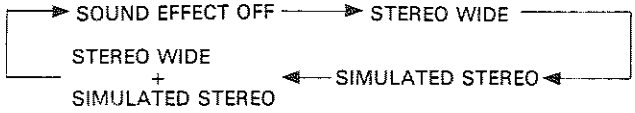
NOTE:
In the case of a monaural source, a STEREO WIDE effect cannot be obtained. In such a case, operate the SOUND EFFECT switch so that both the STEREO WIDE and SIMULATED STEREO indicators light.

⑥ 5-BAND GRAPHIC EQUALIZER

This allows the sound quality to be varied.

⑦ SOUND EFFECT switch

Every time this is pressed, the sound modes are selected alternately as follows:



⑧ MUTING switch

This temporarily cancels out the sound.

⑨ BALANCE switches

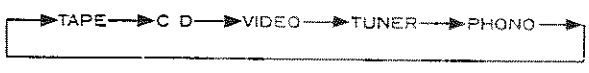
L: Used to reduce the sound from the right speaker.
R: Used to reduce the sound from the left speaker.
L/R: When both switches are pressed, the sound is instantly returned to its normal (center) setting.

⑩ VOLUME control switch

Push the "–" or "+" switch to control the volume.
+: Used to increase the volume.
–: Used to reduce the volume.

⑪ FUNCTION switch

This is used to select the sound source which is to be delivered through the speakers or the source which is to be recorded. Every time it is pressed, the functions are selected successively as follows:



TAPE:	Used to listen to tapes.
CD:	Used to listen to compact discs.
VIDEO:	Used to listen to a video component (LaserVision player or hi-fi VCR) connected to the rear panel VDP/VIDEO jacks.
TUNER:	Used to listen to radio broadcasts.
PHONO:	Used to listen to records on a turntable.

⑫ TIMER STAND-BY switch

Press this when using the built-in timer for unattended recording or wake-up playback.

⑬ TIMER STAND-BY MODE selector switch

TAPE PLAY: Used for wake-up playback.
TAPE REC: Used for unattended recording.
TUNER: Used when waking up to radio broadcasts instead of an alarm clock.

⑭ SPEAKERS switches

These are used to select the speakers through which you wish to listen.
A: When the speakers connected to A terminals are in use.
B: When the speakers connected to B terminals are in use.
- Turn both A and B speakers to OFF position when only the HEADPHONES are in use.

NOTE:
No sound will be heard through the speakers when both A and B switches are depressed if only one set of speakers has been connected to either A or B SPEAKER terminals.

⑮ PHONES jack

This is a stereo mini jack for connecting the headphones.

⑯ Cassette door I

⑰ EJECT (deck I)

Push the [⏏] mark to open the cassette door.

⑱ PLAYBACK function switches (deck I)

◄◄ (FAST): This switch is used for rewinding when the unit is in the forward mode; for fast forwarding a tape in the reverse mode.
◄ (PLAY): For playing back a tape in the reverse mode.
■ (STOP): For stopping the tape run.
► (PLAY): For playing back a tape in the forward mode.
►► (FAST): This switch is used for fast forwarding when the unit is in the forward mode; for rewinding a tape in the reverse mode.

⑲ EJECT (deck II)

Push the [⏏] mark to open the cassette door.

⑳ Cassette door II

㉑ REC/PLAYBACK function switches (deck II)

● REC (RECORD): For recording material onto a tape.
◄◄ (FAST): For rewinding a tape in the forward mode; for fast forwarding a tape in the reverse mode.
◄ (PLAY): For playing back a tape in the reverse mode.
■ (STOP): For stopping the tape run.
► (PLAY): For playing back a tape in the forward mode.
►► (FAST): For fast forwarding a tape in the forward mode; for rewinding a tape in the reverse mode.
▬ SYNCHRO PHONO/CD: This switch is used to put the unit into the "synchronized recording" mode in which recording starts as soon as a turntable or CD player is started.
▮▮ PAUSE: For temporarily stopping the tape run.
○ REC MUTE: For creating the blanks of the appropriate length between tape programs or for cutting out unnecessary parts of a program being recorded.

NOTE:
The SYNCHRO function can be used only with PIONEER components which have a CONTROL IN jack.

㉒ REVERSE MODE switch

Switch position	During playback	During recording
RELAY I►II	deck I → deck II	
⇄	Single-sided playback	Single-sided recording
⇉	Double-sided playback	Double-sided recording
↻	Continuous playback	Double-sided recording

㉓ DOLBY NR* switch

The DOLBY switch can be set to Dolby B NR, Dolby C NR, or Dolby NR OFF. (Normally set it to Dolby NR OFF.)
The Dolby NR B system serves to reduce noise in the treble range, it cuts tape hiss and expands the dynamic range. The Dolby NR C system is even more effective than the B in reducing noise as it cuts the noise from the mid-range on.
- If material has been recorded using the Dolby NR system, make sure that it is played back using the same system. Playing back a tape, which was recorded with the Dolby NR system, at the Dolby NR OFF position or playing back a tape, which was recorded at the Dolby NR OFF position or recorded using a different system to the Dolby system will not yield a sound faithful to the original one.
- It is therefore recommended that you make a note of the fact on the tape's label that the recording was made using the Dolby NR system. This will safeguard against its playback in a different switch position.

*
- The Dolby noise reduction system is manufactured based on enforcement rights obtained from the Dolby Laboratories Licensing Corporation.
- "Dolby" and the "double D" symbol are registered trademarks of the Dolby Laboratories Licensing Corporation.

㉔ TAPE COUNTER

This indicates in 3 digits how far the tape in deck II has run.

㉕ TAPE COUNTER RESET button

㉖ Remote control sensor window

㉗ MIC MIX control

This is used to adjust the proportion of the microphone volume and volume of the other sound source for mixing.

㉘ MIC jack

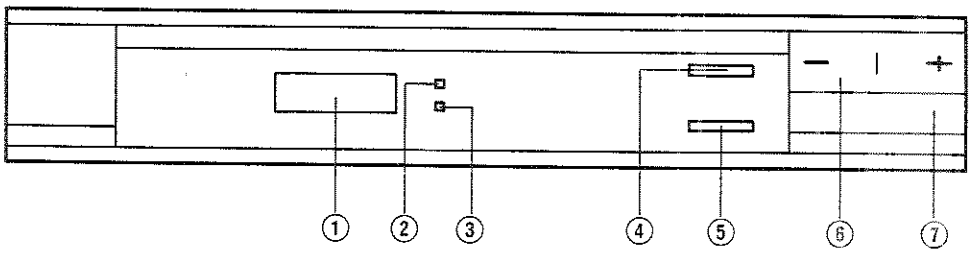
This is a standard jack for connecting the microphone.

㉙ SYNCHRO COPY switches

NORMAL SPEED: Used to copy a tape while listening to the tape's playback (normal-speed copying).

HIGH SPEED: Used to copy a tape at approximately double the normal speed (this takes about half the time which is normally required).

[FM/AM tuner F-X303Z]



① Frequency display

② STEREO indicator

[F-X303Z]

This lights up when the FM program received is being broadcast in stereo.

[F-X303ZA]

This lights up when the FM and AM program received is being broadcast in stereo.

③ TUNED indicator

This lights up when the station has been tuned in.

④ MEMORY switch

Push this to preset stations into the memory (No.1-12).

⑤ TUNING MODE selector switch

Use these for automatic or ordinary manual tuning.

■ AUTO: Used for automatic tuning.

■ MANUAL: Used for ordinary manual tuning.

Automatic tuning:

The electronic tuning circuit inside the unit automatically searches for stations on the air.

Manual tuning:

The tuning switches are used to tune into the frequency of stations on the air.

⑥ TUNING switch

Press these to tune in stations on the air.

⑦ BAND SELECTOR switch

This is used to select the band of the desired station. The bands change alternately each time the selector is pressed.

FM reception → AM reception

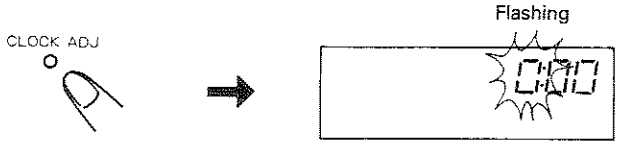
You can check which band has been selected by observing the indicator on the left of the frequency display ①.

SETTING THE CLOCK TIME

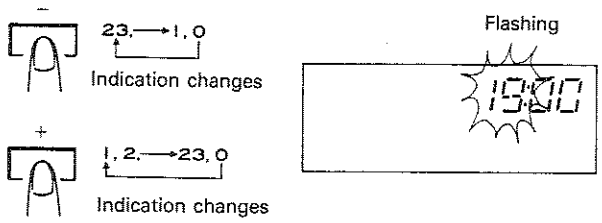
Example: Setting the time to 7 : 15 PM

Press the TIMER SET switches while observing the central display.

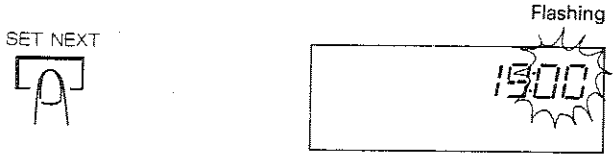
① **Press the CLOCK ADJUST switch.**



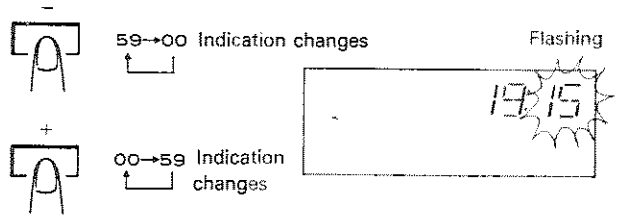
② **Set the "hours" of the time.**



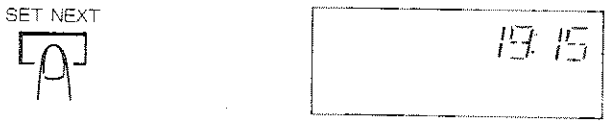
③ **Press the NEXT switch for the next step (setting the "minutes" of the time).**



④ **Set the "minutes." Set the figure to 1 or 2 minutes ahead of the actual time.**



⑤ **Press the SET switch when exactly "00" seconds is displayed.**



⑥ **The time now starts from 19 : 15 : 00.**
"00" denotes that the seconds have been reset to 00.

In the event of a power failure, a flashing 0 : 00 indication will appear on the time indicator. In such a case, reset the clock.

GRAPHIC EQUALIZER CONTROLS

The advantage of the GRAPHIC EQUALIZER over conventional tone controls is that with the five controls of the GRAPHIC EQUALIZER it is possible to control five different narrow. With conventional tone controls a setting for a bass or treble boost or cut will also affect the lower or upper mid frequencies. The frequency bands controlled by the five slide controls have been chosen to yield the maximum possible control action within the audio spectrum.

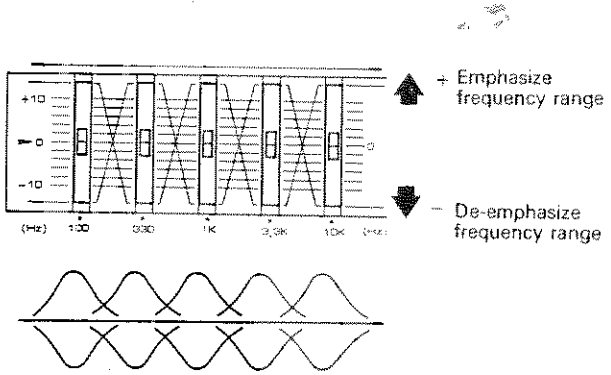
100 Hz: The 100 Hz control is very useful for enhancing low bass notes as in organ music.

330 Hz: The 330 Hz control will allow you to vary the upper bass frequencies.

1 kHz: The 1 kHz control is the presence control and can be used very effectively to emphasize, or de-emphasize vocalists.

3.3 kHz: The 3.3 kHz control will add brilliance and clarity to brass instruments and violins

10 kHz: The 10 kHz control can be used to make up for missing high frequencies absorbed by the environment and to add a natural crispness to music.



OPERATING THE CONNECTED COMPONENTS

① **Press the POWER switch to the ON position. Switch on the power of the components connected to the unit.**

② **Push the FUNCTION switch to select the function corresponding to the component which is to be operated.**

Check that the connections of the component have been completed properly and that the FUNCTION switch is at the proper position.

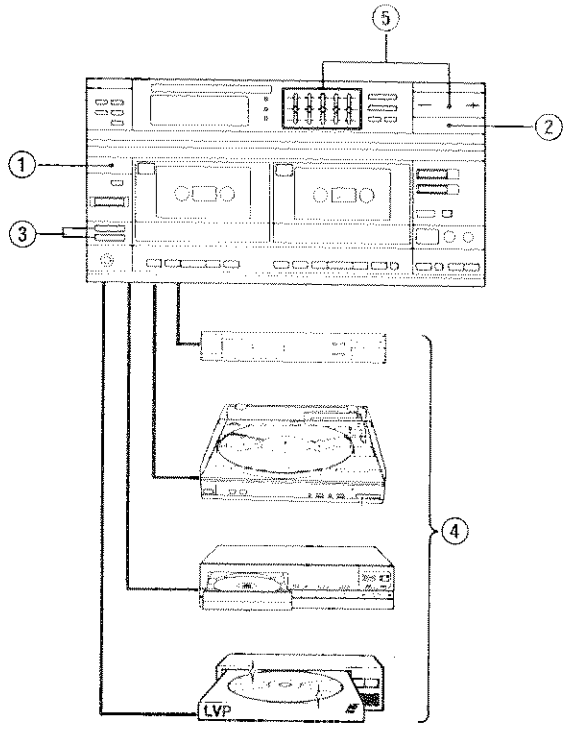
Component to be operated	FUNCTION switch
Tuner	TUNER
Turntable	PHONO
Compact disc player	CD
Component connected to VDP/VIDEO jacks on rear panel	VIDEO

③ **Press the SPEAKERS switch to be used.**

④ **Operate the stereo component(s).**

For details, refer to the Operating Instructions of the respective component.

⑤ **Adjust the volume and sound quality.**



HINTS ON HANDLING CASSETTE TAPES

Bear in mind the following points before loading cassette tapes into your unit.

Does the tape project from the cassette shell or is it slack inside?

Any tape which is projecting from the cassette shell or which is slack inside the shell may not enter between the capstan and pinch roller, with the result that it may not be transported or that it may be damaged. In cases like this, take up the slack by inserting a pencil into the reel shaft, as shown in Fig. A.

A plastic or cardboard stopper is sometimes provided to prevent tape slack. Make sure that this is removed before loading the tape and that it is replaced after use.

What are the accidental erasure prevention tabs for?

Each cassette has two accidental erasure prevention tabs which prevent valuable recordings from being erased in error.

When the tabs (see Fig. B) are broken out using the tip of a screwdriver, for instance, it will not be possible to set the deck to the recording mode even by pressing the REC switch. In this way, valuable recordings will be protected from accidental erasure.

To re-record on a cassette whose tabs have been broken out, adhere a double layer of adhesive tape over the tab openings (see Fig. C).

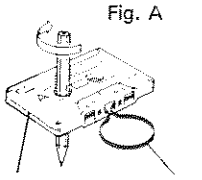
An accidental erasure prevention tab is provided for each side, A and B (1 or 2), so that recordings on each side can be safeguarded from accidental erasure.

Advice on tape handling

- At the beginning of each cassette tape is a leader tape (which cannot be recorded over). Allow the tape to run for about 5 seconds past the heads before proceeding to record.
- Do not leave cassette tapes lying around unprotected. In order to protect them from dust and dirt after use and to prevent tape slack, keep them in their cases and choose a location for storage which is not susceptible to dust, dirt, oil or the effects of magnetism.
- Do not use C-120 tapes with this unit because they are so thin that they often get jammed in the pinch roller or capstan and can cause trouble such as becoming tangled up.

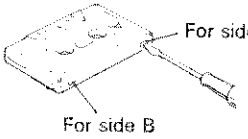
Taking up tape slack

Fig. A



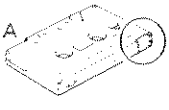
Preventing an already recorded tape from being erased

Fig. B



Adhesive tape for re-record

Fig. C

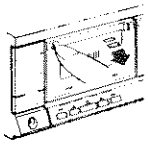


LISTENING TO CASSETTE TAPES

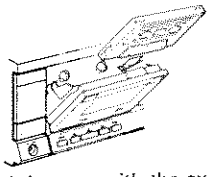
[Loading/unloading cassette tapes]

The description focuses on use in deck I although the procedure is exactly the same for deck II.

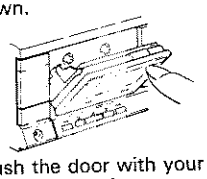
Loading the tape



Press the "EJECT" marked part to open the cassette door.



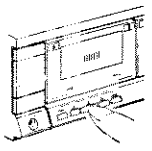
Load the tape with the exposed tape surface facing down.



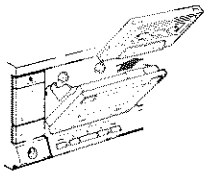
Push the door with your hand to close it.

Unloading the tape

Recording and playback operations



Press the stop switch to stop the tape.



Wait a moment, then push the "EJECT" marked part and open the cassette door to remove the tape.

Tape play

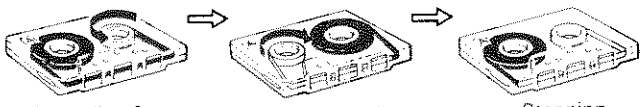
Tapes may be played back in deck I or deck II but not in both decks at the same time.

① **Press the POWER switch to the ON position.**
② **Load a tape which has already been recorded.**
③ **Press the SPEAKERS switch to be used.**
④ **Press the FUNCTION switch and set it to "TAPE."**
⑤ **Set the DOLBY NR switch to the desired position.**
⑥ **Select the REVERSE MODE switch.**
⑦ **Press the PLAY switch (► or ◄).**
Press the PLAY switch of the deck into which the cassette has been loaded.
⑧ **Press the STOP (■) switch to stop the tape.**
⑨ **Press the EJECT on the cassette holder to remove the tape.**

- When the PLAY switch of one deck is pressed while a tape is being played back in the other deck, that switch will not work.

RECORDING ONTO A CASSETTE TAPE

Material can be recorded in deck II only. Recording is not possible on deck I. Follow the procedure below for recording (with ⊃ or ⊂⊃).



Recording from the top side | Moving to the reverse side | Stopping the tape

① **Press the POWER switch to the ON position.**
② **Load the tape for recording into deck II.**
③ **Set the DOLBY NR switch to the desired position.**

- A tape which has been recorded using the Dolby NR system must be played back using the same system.

④ **Use the FUNCTION switch to locate the program source which is to be recorded and play that source.**

Program source	Central display	Operation
Tape	TAPE	Operate deck I.
Compact disc	CD	Play the compact disc.
Component connected to VDP/VIDEO jacks	VIDEO	Operate the component connected to the VDP/VIDEO jacks.
Radio broadcast (on-air recording)	TUNER	Tune in the station.
Record	PHONO	Operate the turntable.

⑤ **Press the REC switch (●).**

- The recording indicator now lights.

⑥ **Press the PLAY switch (► or ◄).**
⑦ **Press the STOP switch (■) to stop the recording.**
⑧ **Press the EJECT on the cassette holder and take out the tape.**

Auto-stop mechanism

In order to prevent tapes from being stretched and the pinch roller from being deformed, this unit automatically releases the tape mechanism and stops the tape when it has come to the end during recording, playback, fast forwarding or rewinding.

Questions (Q) and answers (A) on recording

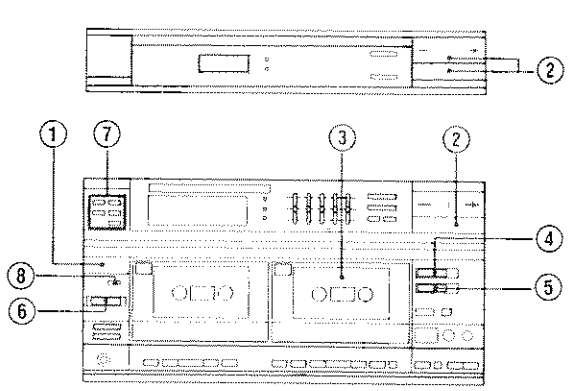
Q: How is the recording level adjusted?
A: This unit has a built-in automatic level control which dispenses with the need to adjust the recording level.
Q: What happens when a recording is made without any sound being played back?
A: This is known as no-signal recording. Although no sound as such is recorded, a hissing noise will be heard since this unit has an automatic level control. Use the recording mute function to eliminate the hissing noise.

TIMER RECORDING/PLAYBACK

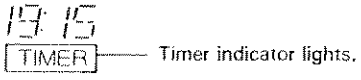
This unit contains its own timer. Make sure that the time is set properly.

Unattended recording (late-night recording)

① **Press the POWER switch to the ON position.**
② **Operate the FUNCTION switch, BAND selector switch, and TUNING switch to receive the broadcast which you wish to record.**
③ **Load the cassette tape into deck II.**
④ **Select the REVERSE MODE switch.**
⑤ **Set the DOLBY NR switch to the desired position.**
⑥ **Set the TIMER STAND-BY MODE selector switch to TAPE REC.**
⑦ **Set the recording start and stop times using the TIMER SET switches.**
Refer to the details below for setting the recording start and stop times.



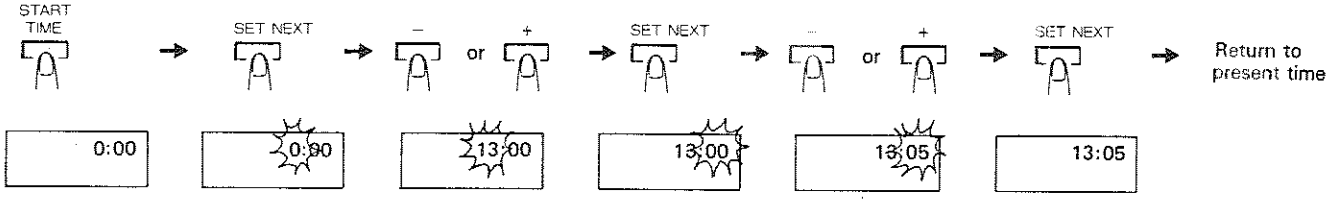
⑧ **Press the TIMER STAND-BY switch.**



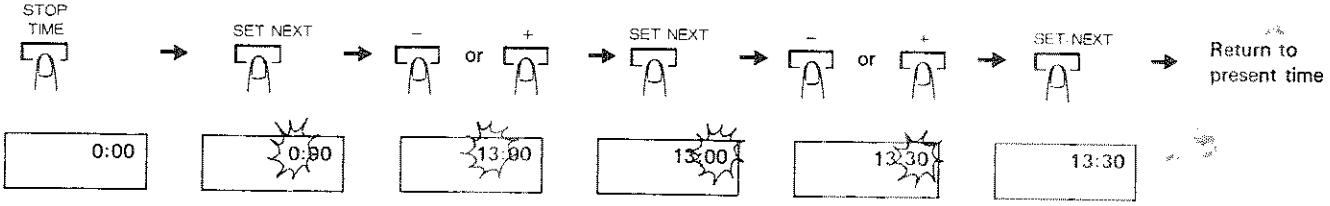
- The unit's power is switched off and the timer is set to the stand-by mode.
Recording will start at the preset start time and continue until the preset stop time.

- Example: Recording from 1:05 PM to 1:30 PM

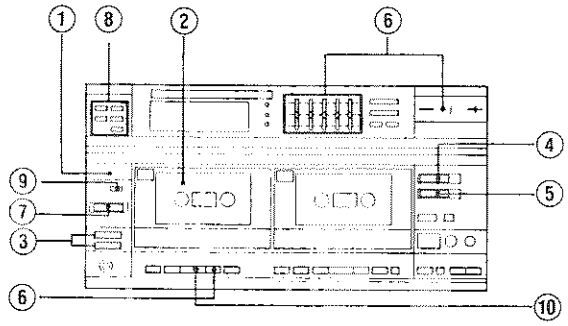
Setting the recording start time



Setting the recording stop time



Wake-up Playback

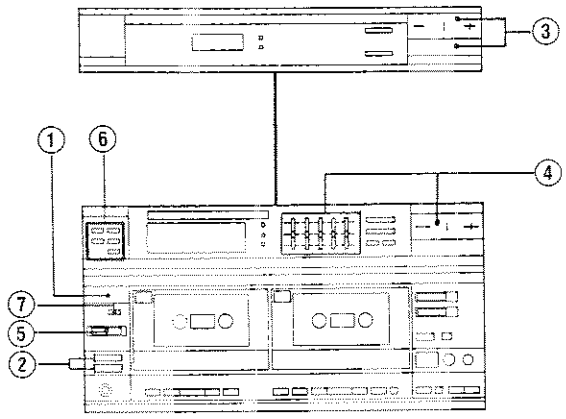


① **Press the POWER switch to the ON position.**
② **Load the cassette tape into deck I.**
③ **Press the SPEAKERS switch to be used.**
④ **Select the REVERSE MODE switch.**
⑤ **Set the DOLBY NR switch to the desired position.**
⑥ **Play back the tape and adjust the volume control and graphic equalizer controls to produce the desired volume and sound quality when the timer playback has begun.**
⑦ **Set the TIMER STAND-BY MODE selector switch to TAPE PLAY.**
⑧ **Set the recording start and stop times using the TIMER SET switches.**
- The start and stop times are set in the same way as for unattended recording (see above).

⑨ **Press the TIMER STAND-BY switch.**
- The power is switched off and the timer is set to the stand-by mode.
The tape starts to play back in the forward direction at the start time, it plays back in the reverse direction and then stops.

⑩ **To stop the tape, press the STOP switch.**

Waking up to a broadcast instead of an alarm clock



① **Press the POWER switch to the ON position.**
② **Press the SPEAKERS switch to be used.**
③ **Tune into the frequency of the station with the broadcast which will wake you up.**
- Refer to the section dealing with radio reception for details.

④ **Set the VOLUME switch and graphic equalizer to obtain a suitable volume level and sound quality when a broadcast starts.**
⑤ **Set the TIMER STAND-BY MODE selector switch to TUNER.**
⑥ **Set the start and stop times of the reception with the TIMER SET switches.**
- The start and stop times are set in exactly the same way as for unattended recording and so refer to this section for details.

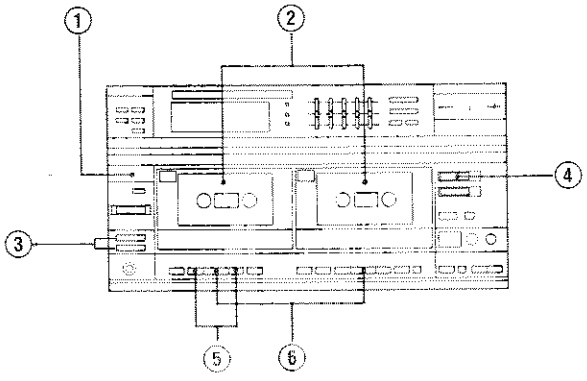
⑦ **Press the TIMER STAND-BY switch.**
- The power is switched off and the unit is set to the stand-by mode. The broadcast is received at the start time and it continues until the stop time.

Checking start and stop times of timer

When the START TIME or STOP TIME (timer set) switch is pressed, the set time will appear for about 5 seconds on the central display.

[Caution]
- Once the start and stop times have been set, they will remain stored in the memory. To start and stop the tape at the same times for the next session as will, press the (TIMER) switch.
- If the (POWER) switch is pressed when the timer is in the standby condition, the standby condition will be cancelled.

RELAY PLAYBACK (DECK I → DECK II)

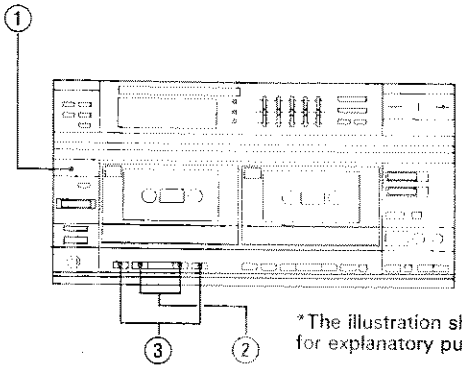


When the auto-stop mechanism of deck I is activated after reverse playback, the tape in deck II automatically starts playing in the forward mode, it continues in the reverse mode and then stops. Relay playback from deck II to deck I is not possible.

① **Press the POWER switch to the ON position.**
② **Load the playback tapes into deck I and deck II.**
③ **Press the SPEAKERS switch to be used.**
④ **Set the REVERSE MODE switch to RELAY PLAY (I►II).**
⑤ **Press the PLAY switch (► or ◄) on deck I.**
- The tape in deck I starts playing back. When it stops automatically as it comes to the end of the reverse side, the tape in deck II will start playing.
- The tape in deck II will stop automatically when it comes to the end of its reverse side.

⑥ **Press the STOP switch at any time to stop relay playback.**

MUSIC SEARCH

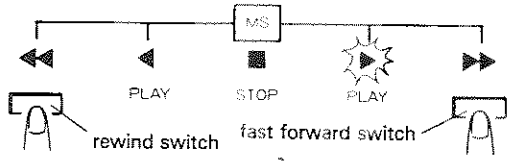


*The illustration shows deck I for explanatory purposes.

When a tape is being fast forwarded or rewound and an "unrecorded blank" is located lasting 4 or more seconds between programs, the tape is automatically set to the playback mode.

① Press the POWER switch to the ON position.
② Press the PLAY switch (► or ◄).
③ To listen to the program following the program on the tape now being heard, simply press the fast forward switch. To listen again to the program now being heard, press the rewind switch.

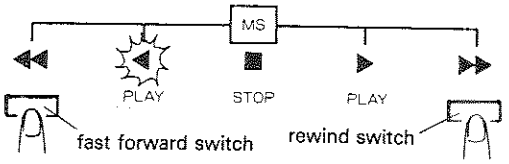
Tape in forward mode



To listen to the same program again

To listen to the next program

Tape in reverse mode



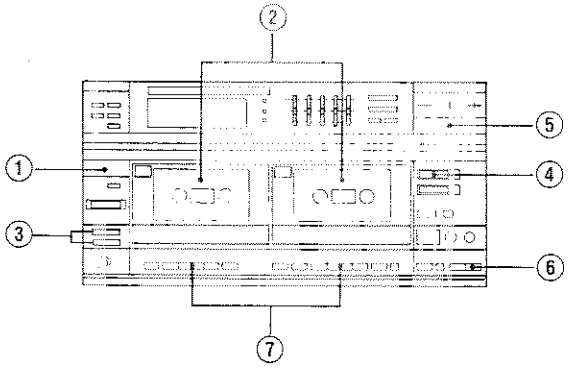
To listen to the next program

To listen to the same program again

Do not change the tape direction during a music search. This will stretch the tape and may result in a malfunction.

④ When the tape is fast forwarded or rewound and an unrecorded blank between programs is located, the tape will then be played back.

COPYING TAPES



Duplicating the recorded contents of one tape onto another tape is known as tape copying. The contents of the tape in deck I can be copied onto the tape in deck II (but not vice versa). Copying is not possible even if the COPY switch is pressed while either deck is operating.

If a tape recorded with the Dolby NR system is copied, the copied tape will also be recorded automatically with the Dolby NR system. If a tape recorded in the normal mode is copied, the copied tape will also be recorded automatically in the normal mode.

Copying a tape while listening to it

① Press the POWER switch to the ON position.
② Load the pre-recorded tape into deck I and the copying tape into deck II.
③ Press the SPEAKERS switch to be used.
④ Select the REVERSE MODE switch.

REVERSE MODE switch	Operation
(single-sided recording/playback)	One side is copied from deck I to deck II.
(double-sided recording/playback)	Both sides are copied from deck I to deck II.
(repeat/double-sided)	(Same as double-sided recording/playback)

⑤ Set the FUNCTION switch to TAPE.

Even if the FUNCTION switch is set to another position, tape copying will still proceed, regardless of the switch position. The sound of the program source selected by the FUNCTION switch will be heard through the speakers.

⑥ Press the NORMAL SPEED SYNCHRO COPY switch.

- Deck I plays back while deck II records.
- When the tape comes to the end due to the reverse mode setting, it will automatically stop.

⑦ Press the STOP switch (■) on either deck to stop the copying at any time.

Copying a tape in half the time (at double the speed)

① Press the POWER switch to the ON position.
② Load the pre-recorded tape into deck I and the copying tape into deck II.
③ Select the REVERSE MODE switch.
- Operation is the same as for "Copying a tape while listening to it."

④ Press the HIGH SPEED SYNCHRO COPY switch.

Tape copying proceeds, regardless of the FUNCTION switch position. The sound of the program source selected by the FUNCTION switch will be heard through the speakers.

- When the tape comes to the end due to the reverse mode setting, it will automatically stop.

⑤ Press the STOP switch on either deck to stop the copying at any time.

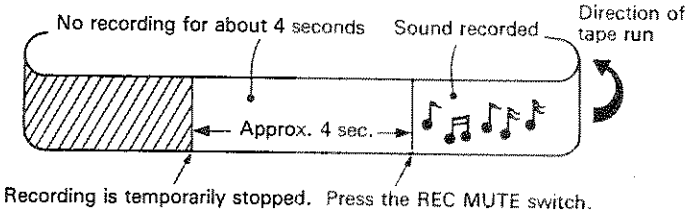
AUTO-SPACE REC MUTE

Creating the unrecorded blanks

[Creating an unrecorded blank of about 4 seconds automatically]

When the REC MUTE switch (●) is pressed during recording, an unrecorded blank of about 4 seconds can be automatically created.
- This switch is used to create the unrecorded blanks which last for about 4 seconds and which are required for music and program searches and for program copying.

① When reaching the stage when an unrecorded blank is required, press the REC MUTE switch (●).
② After about 4 seconds, the tape will automatically stop traveling and the recording will be temporarily suspended.
③ Press the PAUSE switch (▮▮) to resume recording.


No recording for about 4 seconds
Sound recorded
Direction of tape run
Approx. 4 sec.
Recording is temporarily stopped. Press the REC MUTE switch.

[Creating an unrecorded blank of less than 4 seconds]

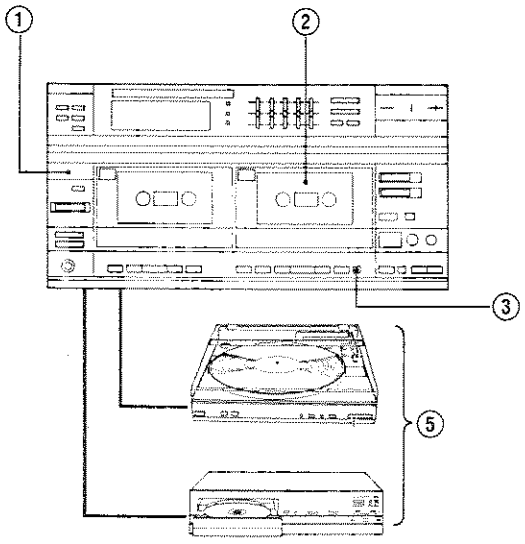
Press the PAUSE switch (▮▮) immediately after the REC MUTE switch (●) has been pressed. To resume recording, press the PAUSE switch (▮▮) again.

[Creating an unrecorded blank of more than 4 seconds]

Keep the REC MUTE switch (●) depressed for the required time. As soon as the switch is released, the recording is temporarily stopped. Press the PAUSE switch (▮▮) to resume recording.

*To resume recording, the PLAY switch (► or ◄) may be used instead of the PAUSE switch.

SYNCHRONIZED RECORDING



Synchro recording using the remote control unit

Outlined below are the procedures for synchronized recording which ensures that the operation of a turntable or CD player will be synchronized with that of the unit.

Components used with the unit

[Turntable synchronized]

Any PIONEER turntable equipped with a CONTROL IN jack

[CD player synchronized]

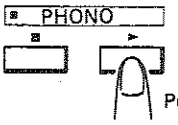
Any PIONEER compact disc player equipped with a CONTROL IN jack

When the unit is used in combination with a component described above, synchro operations enabling the deck amplifier to start in synchronization with disc play on the turntable (or CD player) can be performed.

① Press the POWER switch to the ON position.
② Load the recording cassette into deck II.

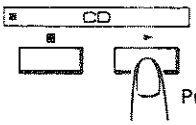
③ Press the SYNCHRO PHONO/CD switch.
④ Start operating the component used in combination with the unit using the remote control unit.

[Turntable]



- When the deck amplifier is put into the recording mode, the turntable will automatically start.

[CD player]



- When the deck amplifier is put into the recording mode, the CD player will start automatically.

⑤ Press the STOP switch (■) upon completion of the synchronized recording.

NOTE:

- *Always keep the PH/CD SYNCHRO switch in the OFF position when you are not performing a synchronized recording operation. If the switch is ON, sound from the turntable or CD player may be recorded if the component is inadvertently operated by the remote controller while another program source (such as an FM program) is being recorded.*
- *The turntable or CD player being operated will not stop operating even when the recording mode of deck II is released as long as the component in question is still operating.*
- *Synchro recording will not take place when the PLAY key on the remote controller of a turntable or CD player is pressed.*

MIXING (SINGING ALONG TO ACCOMPANIMENT)

Mixing in a nutshell

Mixing is creating a new sound by combining one set of signals with another set of signals. "Karaoke" singing is a typical example of mixing.

Singing along to accompaniment

① **Connect a microphone to the MIC jack.**
② **Press the POWER switch to the ON position.**
③ **Turn up the volume to the desired level.**
④ **Set the MIC MIX control to its center position.**

- Proceed as follows to deal with howl (a prolonged wailing noise) if it is heard.

(1) Set the MIC MIX control to MIN.
(2) Place the microphone as far away from the speakers as possible.
(3) Turn down the volume.

⑤ **Use the FUNCTION switch to select the program source which will serve as the background sound.**
⑥ **Play the program source.**
⑦ **Adjust the overall volume.**
⑧ **Use the MIC MIX control to adjust the balance between the microphone volume and program source volume.**
⑨ **Sing along to the program source.**

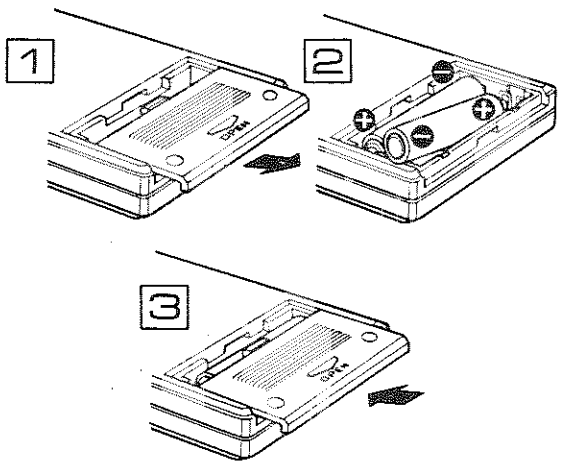
MIXING RECORDING

Make a recording using deck II. You can, for example, record an orchestral background for a sing-along session.

① **Carry out the above steps ① to ⑧.**
② **Insert a blank tape into deck II.**
③ **Press the [REC (●)] switch on deck II.**
④ **Press the [PLAY (► or ◄)] switch on deck II.**
⑤ **Sing along with the program source.**

INSERTING THE BATTERIES INTO THE REMOTE CONTROL UNIT

When the packing box containing the deck amplifier is opened.



[1] Remove the cover of the battery compartment on the reverse side of the remote control unit. This can easily be done by pressing down on the cover with your thumb and pulling it in the direction of the arrow.

[2] Take out the two size "AAA" (IEC R03 (UM-4) dry batteries supplied and load them into the battery compartment, taking care to follow the markings on the compartment.

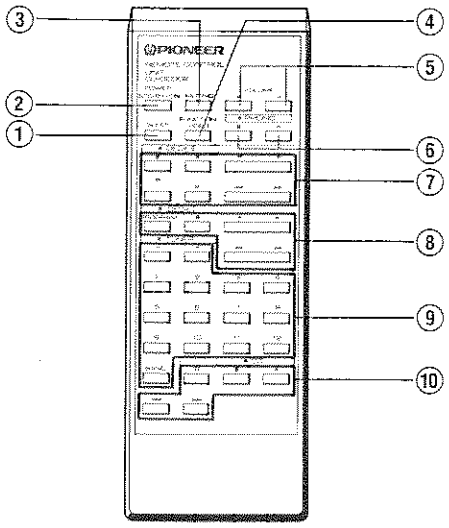
[3] Replace the cover of the battery compartment.

Cautions for handling dry batteries.

Misusing dry batteries can result in electrolyte leakage or explosions. Bear in mind the following points for getting the most out of your batteries.

- When loading the batteries into the battery compartment, make sure the plus ⊕ and minus ⊖ polarities correspond to the markings on the compartment.
- Even though they may be the same shape, batteries come with different voltage ratings. Do not mix or use different types of batteries together. Use only the same kind of batteries.
- Do not mix up new batteries and used batteries but replace all the batteries at the same time.
- Do not heat up, disassemble or shortcircuit batteries or throw them into a fire.
- Some batteries are rechargeable while others are not. Observe the cautionary notes on the batteries and use them properly.

REMOTE CONTROL UNIT



When you play back a recording on a different unit using the remote control unit, the [FUNCTION] key will automatically switch over. However, the deck and equipment connected to it will continue to operate. If necessary, stop the deck by pressing the stop key.

The function symbols given in the Operating Instructions for the turntable and compact disc player are the same as the function symbols marked on the remote control unit and so, in both cases, they denote the same operation.

Remote control

① SLEEP key

Each time the SLEEP key is pressed, the indication will change as shown below.

90 → 60 → 30 → time indication

The respective indications will automatically disappear after about 90 minutes, 60 minutes, and 30 minutes. Also, the sleep function will be cancelled.

② POWER key

Used to switch the power on and off.

③ MUTING key

Used to mute the sound.

④ FUNCTION VIDEO key

When listening to a source connected to the VDP/VIDEO terminal, change the function switch to VIDEO.

⑤ VOLUME keys

+: Used to turn the volume up.
−: Used to turn the volume down.

⑥ PHONO function keys

These enable the functions of a PIONEER turntable (with CONTROL IN jack), which is used in combination with the unit, to be operated by remote control.

⑦ DECK II function keys

These operate the deck amplifier's deck II functions.

▮▮(PAUSE):
Used to temporarily stop playback or recording.

■ (STOP):
Used to stop tape run or recording.

► (forward playback):
Used to play back or record a tape in the forward direction.

◄ (reverse playback):
Used to play back or record a tape in the reverse direction.

● (REC):
Used for recording.

○ (REC MUTE):
Used to create blanks between programs or cut out unnecessary parts during a recording.

◄◄ (FAST):
Used to rewind a tape from right to left.

►► (FAST):
Used to fast forward a tape from left to right.

⑧ DECK I function keys

These operate the deck amplifier's deck I functions.

PROGRAM:
Used for program search (see page 2, 5).

■ (STOP):
Used to stop tape run.

► (forward playback):
Used to play back or record a tape in the forward direction.

◄ (reverse playback):
Used to play back or record a tape in the reverse direction.

►► (FAST):
Used to rewind a tape left to right.

◄◄ (FAST):
Used to fast forward a tape from right to left.

⑨ TUNER function keys

These keys enable FM/AM reception.

−: Used to tune in the memory numbers in descending order.
+: Used to tune in the memory numbers in ascending order.
1—12 : Used for direct tuning.
BAND: Used to switch between FM and AM reception.

⑩ CD function keys

Used to control the functions of a PIONEER compact disc player (with a CONTROL IN jack) when it is used in combination with the unit.

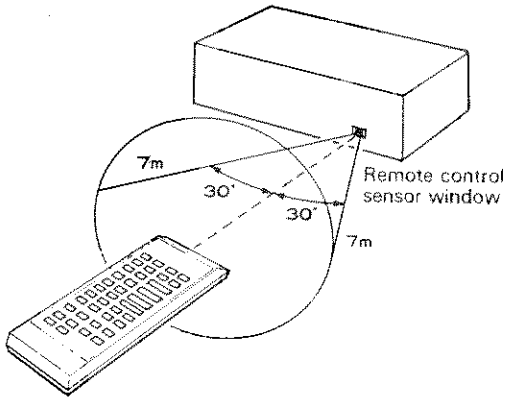
Range of remote control

When the remote control unit is pointed at the remote control sensor window on the deck amplifier and any of its keys is pressed, the unit and other components can be operated by remote control.

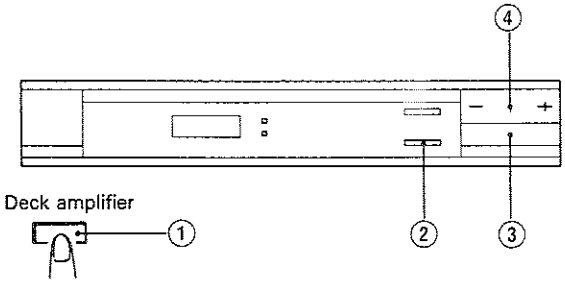
Distance: Within a range of about 7 meters from the unit's remote control sensor window

Angle: Within approx. 30 degrees from the center of the unit's remote control sensor window

Remote control will not be possible if there is an obstacle between the remote control unit itself and the unit's remote control sensor window.



FM AND AM RECEPTION



① Press the deck amplifier's POWER switch to the ON position.

② Select the position of the TUNING MODE selector switch.

[Automatic tuning]

The unit's electronic circuit will automatically search for stations.

[Manual tuning]

Press the TUNING switches to tune into the frequency of the desired broadcast station.

③ Select FM or AM reception using the BAND SELECTOR switch.

- Each time this switch is pressed, the "FM and MHz" and "AM and kHz" indicators light alternately. The lighted indicator shows the broadcast band which has been selected.

④ Press the "+" or "−" TUNING switches.

[When tuning automatically]

- Pressing the "+" switch: frequencies are searched in ascending order.
- Pressing the "−" switch: frequencies are searched in descending order.

The frequencies now change and when a station has been located, the tuning stops automatically.

[When tuning manually]

- Each time the "+" or "−" TUNING switch is pressed, the frequency changes one step at a time.

When it is kept depressed, the frequency changes continuously. The TUNED indicator lights when a station is received. It may not light when the station is far away and its signals are weak.

⑤ Repeat step ④ when tuning in a different station in the same band. Repeat steps ③ and ④ when tuning in a station in a different band.

NOTE:

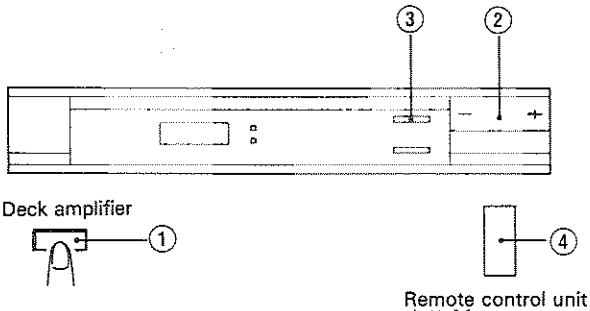
- *Automatic tuning not be possible for station which are far away and whose signals are weak. In cases like this, try manual tuning.*
- *If severe noise disturbance is experienced during reception of AM broadcasts, use the deck amplifier's graphic equalizer function to compensate the sound for easiest listening.*

Note regarding the use of the F-X303ZA for reception of AM stereo broadcasts in Australia:

- If an AM stereo broadcast is received, the STEREO indicator will light approximately 1.5 seconds after the station is tuned in, and stereo reproduction will begin.
- If the TUNED indicator does not light when the desired station is tuned in, stereo reproduction is not possible. If the TUNED indicator does not light, reorient the accessory AM Loop Antenna to eliminate noise and interference so that the TUNED indicator will light.

PRESETTING FM AND AM STATIONS

[Extended operations using remote control]



① Set the deck amplifier's POWER switch to ON.

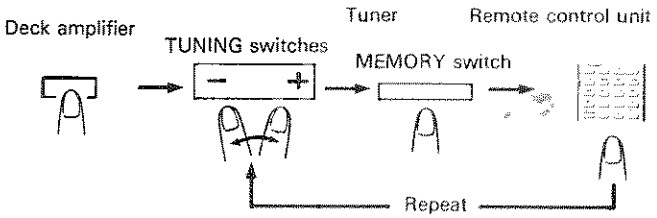
② Tune in the station to be preset using the TUNING switches.

- Refer to the section on "FM and AM reception" for details on the tuning.

③ Press the MEMORY switch. The display now flickers.

④ Press one of the remote control unit's 1 to 12 direct tuning keys, into which the station is to be preset.

⑤ Repeat steps ② to ④ and preset stations into keys 1 through 12.

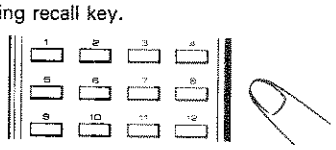


This completes the presetting.

Once presetting is completed, the following operations can be performed.

Direct station recall

A preset station can be tuned in simply by pressing the corresponding recall key.



Tuning in a preset station directly

NOTE:

- *Even when the deck amplifier's POWER switch is in the OFF position, the memory function is provided with a backup capacitor allowing preset stations to be retained for a number of days.*
- *If a preset station has been erased, reset it.*

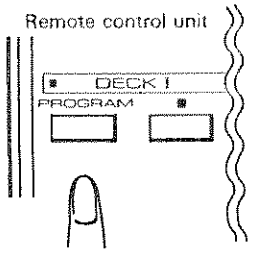
PROGRAM SEARCH

Programs can be played back in the forward mode. Up to 12 programs on one side of a tape can be searched in the order in which you wish to hear those programs.

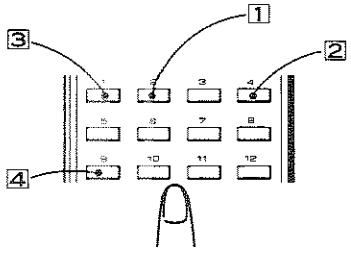
Example:

PROGRAM [1] [2] [3]
[ ] Program No.2 → Program No.4 → Program No.1 →
[4]
Program No.9 → ▷ Operation for playing back the programs in the following order:

① Set the deck amplifier's POWER switch to ON.
② Load a music (pre-recorded) tape into deck I.
③ Press the SPEAKERS switch to be used.
④ Press the PROGRAM key among the deck I function keys on the remote control unit.



⑤ Use the direct tuning keys among the remote control unit's tuner function keys to set the program playback order.



- Start tape rewind, then stop the tape at the start of the second program.

⑥ Press the PLAY key (►).

- Start playing back the program.
- The number of the program being played will be displayed on the central indicator.

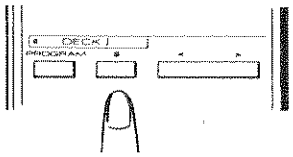
NOTE:

- *When the PLAY key (►) is not pressed, the tape will stop at the program set first (program No.2 in the example).*
- *If the PLAY key (◄) has been pressed in error, program playback will be suspended. Similarly, it will be suspended when any other key is pressed.*

Example:
Program No.2 is being played back

Indication of central display

⑦ Press the STOP key among the deck I function keys to stop program playback at any time.



Program playback continues until the end and then stops.

Program search questions (Q) and answers (A)

How is the setting released when the wrong number direct tuning key has been pressed?

Press the STOP key among the deck I function keys to release the setting. When playing back the program again, repeat step ③ (press the PROGRAM key among the remote control unit's deck I function keys).

What happens if the setting is allowed to remain in the direct tuning key?

Rewind the tape and set the deck to the stand-by mode at the beginning of the program which is to be played back first.
This means at the beginning of program No.2 in the example.

What happens when any other deck I function key is pressed during program playback?

Program playback is released and the tape stops.

What must I do to repeatedly play back the same program?

Press the number corresponding to the key with the program which is to be heard repeatedly and set.

How is the playback order changed?

The playback order cannot be changed during playback. The programs are played back in the order in which they were set. Press the STOP key among the deck I function keys to release all the settings, and set the programs again.

PROGRAM SEARCH/COPY PROCEDURE (Selecting and editing only your favorite programs)

① Press the deck amplifier's POWER switch to ON.

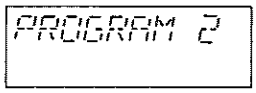
② Load the pre-recorded tape into deck I and the recording tape into deck II.

Steps ③, ④ and ⑤ are the same as those for "Program search." Refer to this section.

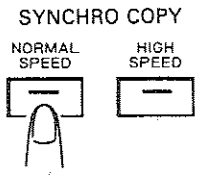
③ Press the PROGRAM key among the deck I function keys on the remote control unit.

④ Use the direct tuning keys among the tuner function keys to set the order in which the programs are to be copied.

- Start rewinding the tape and stop it at the program which has been set as the first to be copied.



⑤ Press the NORMAL SPEED COPY switch on the deck amplifier.



- Deck I starts playing back the program while deck II starts to record it.
- Deck II creates an unrecorded blank of about 4 seconds and copies the following programs in succession. When the programs are next to each other (as with programs 1 and 2), the tape will keep running.

NOTE:

- *Programs cannot be copied at double the normal speed.*
- *Programs can be copied only during single-side running in the forward mode.*

⑥ To stop program copying at any time, press the STOP switch among the remote control unit's deck I or deck II function keys.

Caution with program search/copy

When a function is selected, however, with program copying, the program source selected by that function is recorded. It is thus a good idea not to change the function while copying programs.

NOTE:
The program or music search may not function properly with the following types of tapes. This does not mean, however, that there is something wrong with the unit.

- *Tapes which do not have unrecorded blanks of about 4 seconds between programs*
- *Tapes with a great deal of noise and hiss between programs*
- *Tapes of classical music where, for instance, pianissimo sections continue for many seconds, and tapes where, in a program, the sound is broken for several seconds*
- *Tapes of conversations or speeches where the voice is recorded intermittently*
- *Tapes with extremely quiet portions lasting more than 4 seconds*
- *Tapes with programs which have been recorded at a low level for more than 4 seconds*

SOUND EFFECTS

OPERATION

Press the SOUND EFFECT switch on the deck amplifier to select the desired mode (the SOUND EFFECT indicator will light).

STEREO WIDE

This function enhances the stereo effect. This sound effect is not produced, however, with a monaural sound source.

SIMULATED STEREO

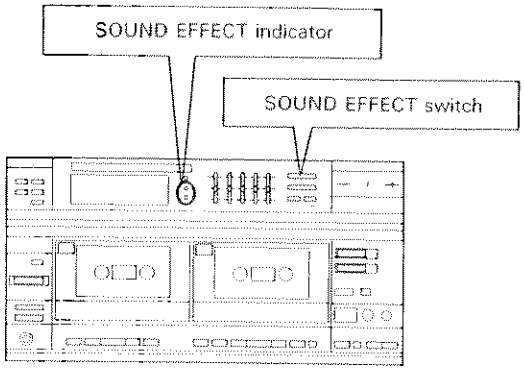
You can obtain a stereo-like effect when reproducing a monaural source, thus adding presence to the reproduced sound.
Use this mode when playing a monaural video cassette recorder or listening to a monaural FM or AM broadcast.

STEREO WIDE + SIMULATED STEREO

Select this mode when you wish to impart additional presence and spread to a monaural source which has been processed using the SIMULATED STEREO function.

OFF

When the switch is in this position, both indicators are out, and normal stereo playback takes place.



MAINTENANCE

CLEANING THE HEAD SECTION

The heads, capstan and pinch roller are parts which are liable to get dirty quite easily. In particular, if the heads are dirty, the high frequency components of the sound will not be reproduced and the stereo balance will be impaired, resulting in a deterioration in sound quality. It is therefore recommended that the head section be cleaned regularly.

1. **Push the EJECT to open the cassette door.**
2. **Press the POWER switch to the ON position.**
3. **Lift the tape detector switch.**
4. **Press the PLAY (► or ◄) switch to raise the head section.**
5. **Dip a cleaning swab into head cleaning fluid and use it to wipe the heads, capstan, and pinch roller.**

DEMAGNETIZING THE HEAD

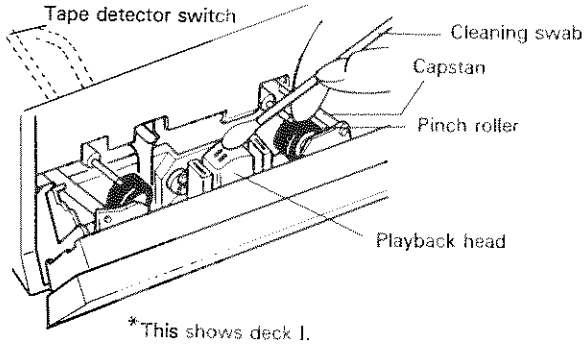
The recording/playback head becomes magnetized when you use the tape deck for prolonged periods of time. This results in noise being generated and the treble dropping off during recording and playback. The recording/playback head should therefore be demagnetized regularly with a head demagnetizer (sold separately).
For further details, refer to the operating instructions accompanying your head demagnetizer.

NOTE:

- *Do not hold screwdrivers, metal objects or magnets close to the heads.*
- *When demagnetizing the heads, be sure the unit's POWER switch is in the OFF position.*

CLEANING THE UNIT

Wipe the front panel and the cassette door when dusty or greasy with a soft cloth containing a small amount of ordinary clean up liquid. Then wipe dry with a cloth. Never use volatile spirits like thinners, benzine or alcohol, as they will damage the panel's finish.



*This shows deck I.

TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used.
If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Trouble common to all sections

Symptom	Probable cause	Remedy
No power even when POWER switch is set ON.	• Disconnected power plug. • The MAIN POWER switch of rear panel is OFF.	• Connect power plug properly. • Set ON.
No sound from speakers.	• Minimum volume. • Disconnected speaker cord. • Function selected does not correspond to desired source. • One of the input pin jacks is disconnected or broken.	• Turn up sound using VOLUME control. • Connect speaker cord properly. • Set FUNCTION switch to correct position. • Connect input pin jack properly or replace jack.
Sound from one side only.	• Disconnected or broken speaker cord.	• Connect speaker cord properly or replace cord.
Howl heard during mic mixing.	• Microphone is pointing in wrong direction. • Microphone is too close. • Volume is too high.	• Change direction. • Place microphone at a distance. • Turn down volume.

Tape-related trouble

No tape run.	• Tape is in pause mode. • Cassette tape has not been inserted properly.	• Press PAUSE or PLAY switch. • Load tape properly into cassette holder.
No tape sound heard.	• FUNCTION switch has been set to any position except TAPE. • Unrecorded tape is being used.	• Set FUNCTION switch to TAPE. • Replace with pre-recorded tape.
No recording.	• Erasure prevention tab is broken.	• Place adhesive tape over erasure prevention tab hole.
No normal speed copying (another sound source is recorded).	• FUNCTION switch has been set to any position except TAPE. Deck I is for playback and deck II for recording.	• Set FUNCTION switch to TAPE. • Press NORMAL SPEED COPY switch.
No treble sound.	• Dirty heads. • A tape, which was not recorded with the Dolby NR system, is being played back using the system.	• Clean heads. • Play the tape back using the same system as was used for its recording (do not play back tapes recorded by other systems).
Treble sound stressed.	• A tape, which was recorded with the Dolby NR system, is being played back with the DOLBY NR switch on OFF.	• Play the tape back using the same system as was used for its recording (do not play back tapes recorded by other systems).
Music search does not take place.	• A tape which has non-recorded portions of at least 4 seconds was not used.	• Use a tape which has non-recorded portions of at least 5 seconds.
Program selection is not possible.	• A tape which has non-recorded portions of at least 4 seconds was not used. • Unit was not correctly operated.	• Use a tape which has non-recorded portions of at least 4 seconds. • Operate the unit correctly while referring to page 20

AM-related trouble

No AM reception.	• BAND SELECTOR switch is not on AM setting. • Station is not tuned.	• Set it to AM. • Tune using TUNING switches.
Beat noise.	• A TV set is being used. • Loop antenna is near electrical equipment.	• Switch off TV set or place unit at a distance from TV set. • Install loop antenna in the optimum position.
Hissing sound.	• Electrical appliance (fluorescent light, hair dryer) is being used.	• Stop using appliance which is generating the hissing sound.
Distorted sound.	• Weak signals from station.	• Erect and connect outdoor AM antenna.

FM-related trouble

No FM reception.	• BAND SELECTOR has not been set properly.	• Set it properly.
Hissing sound.	• Channel or frequency of broadcasting station is not tuned in.	• Tune in properly using TUNING switches.
Distorted sound.	• Antenna is pointed in wrong direction. • Weak signals from station. • Noise from other appliance (or particularly from passing traffic such as motorcycles) or multipath distortion. • CD player's output cord is too close to antenna cord (particularly when signals are weak with indoor antenna).	• Change to a direction in which noise is not distorted. • Replace with outdoor antenna. • Try changing position of T-type antenna. When using outdoor antenna, place it at a distance from road or replace connecting cable with a 75-ohm coaxial cable. • Place CD player's output cord and antenna cord as far away from each other as possible. Also, switch off CD player's power.

Remote controller operation

Remote control operation is not possible.	• Battery is not installed in remote controller. • Battery is dead. • Remote control cord is not connected.	• Insert battery. • Insert a new battery. • Correctly connect remote control cord.

SPECIFICATIONS

DC-X303Z

Amplifier Section

Continuous average power output is 50 watts* per channel, min., at 8 ohms from 40 Hertz to 20,000 Hertz with no more than 0.5% total harmonic distortion.

Continuous Power Output
- Music power (both channels driven) ..... 80 W + 80 W (T.H.D. 1% 8 ohms)
- Peak music power (music power x 2) L,R total ..... 320 W

Hum and Noise (IHF, short-circuited, A network)
- PHONO ..... 72 dB
- MIC ..... 50 dB
- CD, VDP/VIDEO ..... 80 dB

Graphic equalizer frequency band ..... 100 Hz, 330 Hz, 1kHz, 3.3 kHz 10 kHz, ±8 dB

Total Harmonic Distortion (40 Hz to 20,000 Hz, 8 ohms), from CD
- 25 Watts per channel power output ..... No more than 0.3%

Tape Deck Section

Systems ..... 4 track, 2-channel stereo

Heads ..... "Hard Permalloy" recording/playback head x 1
"Hard Permalloy" playback head x 1
"Ferrite" erasing head x 1

Motor ..... DC servo capstan motor x 2
DC reel motor x 2

Wow and Flutter ..... No more than 0.06% (WRMS)

Fast Winding Time ..... Approximately 80 seconds (C-60 tape)

Frequency Response
- −20 dB recording:
  - Normal tape ..... 35 to 14,000 Hz
  - Chrome tape ..... 35 to 15,000 Hz
  - Metal tape ..... 35 to 16,000 Hz

Signal-to-Noise Ratio
- Dolby NR OFF ..... More than 56 dB

Noise Reduction Effect
- Dolby NR B type ON ..... More than 10 dB (at 5 kHz)
- Dolby NR C type ON ..... More than 18 dB (at 5 kHz)

Furnished Parts

Remote control unit 1
Dry batteries, size "AAA" (IEC R03 1.5 V, UM-4) 2
Operating Instructions 1

Miscellaneous

Power requirements
- Australian model ..... a.c. 240 volts ~ , 50Hz
- Other destination models ..... AC110/120/220/240V (switchable) 50/60Hz

Power Consumption
- Australian model ..... 350 W
- Other destination models ..... 140 W

Dimensions ..... 360 (W) x 177 (H) x 340 (D) mm
14-3/16 (W) x 7 (H) x 13-3/8 (D) in

Weight (without package) ..... 8.5 kg (18 lb 12 oz)

**Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.*

F-X303Z

FM Tuner Section

Frequency range ..... 87.5 MHz to 108 MHz

Usable Sensitivity ..... 12.2 dBf, IHF (1.1 μV/75 ohms)

50 dB Quieting Sensitivity ..... Mono: 18.2 dBf (2.2 μV/75 ohms)
Stereo: 38.2 dBf (22.3 μV/75 ohms)

Signal-to-Noise Ratio (at, 85 dBf Input) ..... Mono: 78 dB
Stereo: 75 dB

Distortion ..... Stereo: 0.4% (1 kHz)

Alternate Channel Selectivity ..... 67 dB (400 kHz)

Stereo Separation ..... 40 dB (1 kHz)

Frequency Response ..... 30 Hz to 15 kHz ± 1 dB

Antenna Input ..... 300 ohm balanced
75 ohm unbalanced

Output level (FM 100% MOD) ..... 650 mV

AM Tuner Section

Frequency range
- When 10 kHz step ..... 530 kHz to 1,600 kHz
- When 9 kHz step ..... 531 kHz to 1,602 kHz

Sensitivity (IHF, Loop antenna) ..... 350 μV/m

Signal-to-Noise Ratio ..... 50 dB

Antenna ..... Loop Antenna

Output level (AM 30% MOD) ..... 150 mV

Miscellaneous

Dimensions ..... 360(W) x 55(H) x 334(D) mm
14-3/16(W) x 2-3/16(H) x 13-1/8(D) in

Weight (without package) ..... 2.4 kg (5 lb 5 oz)

Furnished Parts

FM T-type Antenna 1
AM Loop Antenna 1
Tuner input/output cord 1

NOTE:
Specifications and design subject to possible modification without notice due to improvements.

F-X303ZA

FM Tuner Section

Frequency range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... 12.2 dBf, IHF (1.1 μV/75 ohms)
50 dB Quieting Sensitivity ..... Mono: 18.2 dBf (2.2 μV/75 ohms)
Stereo: 38.2 dBf (22.3 μV/75 ohms)
Signal-to-Noise Ratio (at, 85 dBf Input) ..... Mono: 78 dB
Stereo: 75 dB
Distortion ..... Stereo: 0.4% (1 kHz)
Alternate Channel Selectivity ..... 67 dB (400 kHz)
Stereo Separation ..... 40 dB (1 kHz)
Frequency Response ..... 30 Hz to 15 kHz ± 1 dB
Antenna Input ..... 300 ohm balanced
75 ohm unbalanced
Output level (FM 100% MOD) ..... 650 mV

AM Tuner Section

Frequency range
When 9 kHz step ..... 531 kHz to 1,602 kHz
Sensitivity (IHF, Loop antenna) ..... 350 μV/m
Signal-to-Noise Ratio ..... 50 dB

Stereo separation
Motorola type 400Hz, 30% modulation ..... 30 dB

Antenna ..... Loop Antenna
Output level (AM 30% MOD) ..... 150 mV

Miscellaneous

Dimensions ..... 360(W) x 55(H) x 334(D) mm
14-3/16(W) x 2-3/16(H) x 13-1/8(D) in
Weight (without package) ..... 2.4 kg (5 lb 5 oz)

Furnished Parts

FM T-type Antenna 1
AM Loop Antenna 1
Tuner input/output cord 1

NOTE:
Specifications and design subject to possible modification without notice due to improvements.

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